UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,426	11/26/2003	Michael Conrad	07781.0115-00000	6619

22852 7590 03/10/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER	
KIM, DANIEL Y	

ART UNIT	PAPER NUMBER
2185	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/721,426	CONRAD ET AL.	
	Examiner	Art Unit	
	Daniel Kim	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement(s) received May 21, 2004 and June 9, 2004 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the Information Disclosure Statement(s) are being considered by the examiner.

Priority

2. Applicant's claim for the benefit of a prior-filed application no. 60/429,372, filed November 27, 2002 under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al (US Patent No. 5,909,540), Lee et al (US Patent No. 6,823,458) and Mosher et al (US PGPub No. 20030050930).

For claim 1, Carter discloses a method of avoiding data loss in a data object replication process (a coherent replication controller provides for fault tolerant operation, and prevents a loss of data, col. 24, lines 39-44), comprising:

creating an electronic data element (a data control program creates a file object, col. 10, line 16); and

setting a shared lock on the electronic data element (a file system sets a shared lock, col. 14, lines 11-12).

Despite these teachings, Carter fails to disclose the remaining claim limitations. Lee, however, discloses comprising a first field having an identifier and a second field having a state of the identifier (an apparatus assigns a unique identifier, col. 1, lines 62-63; a resource state data structure in memory which maintains a state of each of resource, col. 1, lines 59-60);

setting the second field of the data element to a state indicating that the electronic data element may be accessed and assigned (a resource state data structure in memory maintains a reserved or locked state of each system resource, col. 1, lines 59-60);

assigning the identifier to one or more data objects (col. 1, lines 62-63); and

storing the one or more data objects (resources may be data stored in a memory or strage device, col. 6, lines 52-53).

These combined teachings again fail to disclose the remaining claim limitations. In particular, while Lee discloses setting the state of an identifier and Carter discloses

setting and removing a shared lock, there is no disclosure of replication processing upon a commit of the storing of one or more data objects.

Mosher, however, discloses a lock step data replication procedure, in which replication procedures are prevented from executing until the application is notified that data has been safely stored to a backup system (par. 0006).

Carter, Lee and Mosher are analogous art in that they are of the same field of endeavor, that is, a system and/or method of memory control. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include identifiers and states of such, assigning these to data objects, and replication processing upon storing the data objects because this would provide an apparatus and method for monitoring and securing resources shared over multiple systems and minimizing the risk of data loss and alteration (col. 3, lines 20-25), as taught by Lee.

5. Claims 2-8 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al (US Patent No. 5,909,540), Lee et al (US Patent No. 6,823,458), Mosher et al (US PGPub No. 20030050930) and Sorace et al (US Patent No. 6,477,597).

For claim 2, the combined teachings of Carter, Lee and Mosher disclose the invention as per rejection of claim 1 above. In particular, these teachings disclose an identifier and its state may or may not be assignable to one or more data objects. These teachings fail to disclose the remaining limitations. Sorace, however, discloses:

a first state, in which said electronic data element may be accessed by one or more data object processing operations (an unlocked state allows the resource to be allocated to a process, col. 1, lines 12-13), or

a second state, in which said electronic data element may not be accessed by one or more data object processing operations (a second lock state prevents a process from taking control of the resource, col. 3, lines 41-42).

Carter, Lee, Mosher and Sorace are analogous art in that they are of the same field of endeavor, that is, a system and/or method of memory control. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include different lock states because this would aid in controlling the allocations of resources to processes (col. 2, lines 35-38), as taught by Sorace.

Claim 3 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

Claim 4 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

Claim 5 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

Claim 6 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

For claim 7, the combined teachings of Carter, Lee, Mosher and Sorace disclose the invention as per rejection of claims 1-2 above.

Carter further discloses setting an electronic data element as the default data element (a default fileset is created automatically, col. 9, lines 59-60).

Carter, Lee, Mosher and Sorace are analogous art in that they are of the same field of endeavor, that is, a system and/or method of memory control. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include a setting default data element because this would allow for proper initialization of an addressable shared memory space (col. 9, lines 60-61), as taught by Carter.

Claim 8 is rejected using the same rationales as for the rejections of claims 1-2 and 7 above.

For claim 10, the combined teachings of Carter, Lee, Mosher and Sorace disclose the invention as per rejection of claim 1 above. Carter further discloses a network system including a plurality of network nodes that access a memory space (col. 4, lines 52-54), wherein each node includes a processor, a data control program, and a shared memory subsystem (col. 5, lines 24-25).

Claim 11 is rejected using the same rationale as for the rejection of claim 2 above.

Claim 12 is rejected using the same rationale as for the rejection of claim 3 above.

Claim 13 is rejected using the same rationale as for the rejection of claim 4 above.

Claim 14 is rejected using the same rationale as for the rejection of claim 5 above.

Claim 15 is rejected using the same rationale as for the rejection of claim 6 above.

Claim 16 is rejected using the same rationale as for the rejection of claim 7 above.

Claim 17 is rejected using the same rationale as for the rejection of claim 8 above.

6. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al (US Patent No. 5,909,540), Lee et al (US Patent No. 6,823,458), Mosher et al (US PGPub No. 20030050930), Sorace et al (US Patent No. 6,477,597) and Moller et al (US Patent No. 6,857,068).

For claim 9, the combined teachings of Carter, Lee, Mosher and Sorace disclose the invention as per rejection of claims 1-2 and 4 above.

These teachings fail to disclose the remaining limitations. Moller, however, discloses irreversibly blocking the changing of the state of an electronic data element (a locked state, in which writing into a predetermined section is disabled, and the transition from a state to another state is irreversible, col. 3, lines 50-56).

Carter, Lee, Mosher, Sorace and Moller are analogous art in that they are of the same field of endeavor, that is, a system and/or method of memory control. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include an irreversible block on data because this would allow for a protected section of

data (col. 3, lines 49), and a high amount of data security (col. 6, lines 2-3), as taught by Moller.

Claim 18 is rejected using the same rationale as for the rejection of claim 9 above.

Citation of Pertinent Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Olds et al (US Patent No. 5,832,487) discloses assigning and resolving unique object identifiers for replicated objects.

Schoening et al (US Patent No. 6,769,124) discloses a set phase which changes the state of a network object to the value it is to take.

Contact Information

8. Any inquiries concerning this action or earlier actions from the examiner should be directed to Daniel Kim, reachable at 571-272-2742, on Mon-Fri from 10:00am – 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan, is also reachable at 571-272-4210.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information from published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. All questions regarding access to the Private PAIR system should be directed to the Electronic Business Center (EBC), reachable at 866-217-9197.

DIC

3-2-06

Pierre Vital

PIERRE VITAL
PRIMARY EXAMINER